



Managing the transition phase from CC V2 to CC V3

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Eurosmart: Product & Systems Security Working Group

Speaker : Françoise Forge

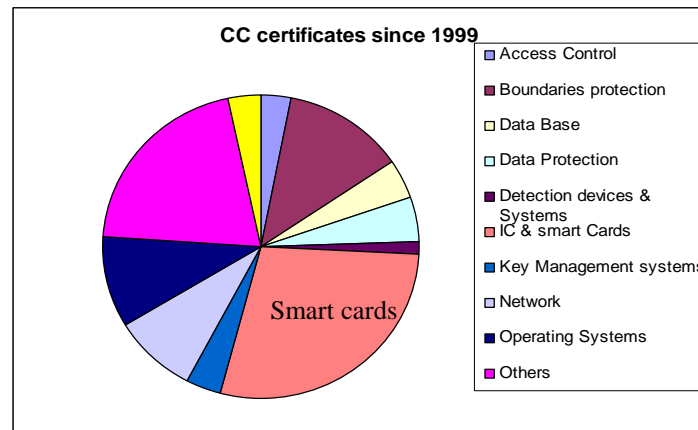


Presentation overview

- **Smart cards industry and CC evaluation**
- **Why switching to CC V3?**
- **Transition steps**
- **Managing the equivalence**
- **Conclusion/recommendations**

Smart card industry and CC evaluation

- Eurosmart association gathers smart cards industry actors
 - Promotion, standardization of smart cards and smart cards systems
 - Definition of consistent quality & security level
- Early involved in CC evaluation
 - Managing working groups dedicated to security evaluation (PSSWG, ISCI)
 - Issuing protection profiles for smart cards platform and OS
 - Providing JIL supporting documents for common interpretation of CC
 - composite evaluation, attack paths, attack quotation, methodology.
- Weight 30% of issued certificates since 1999 (CC portal source)

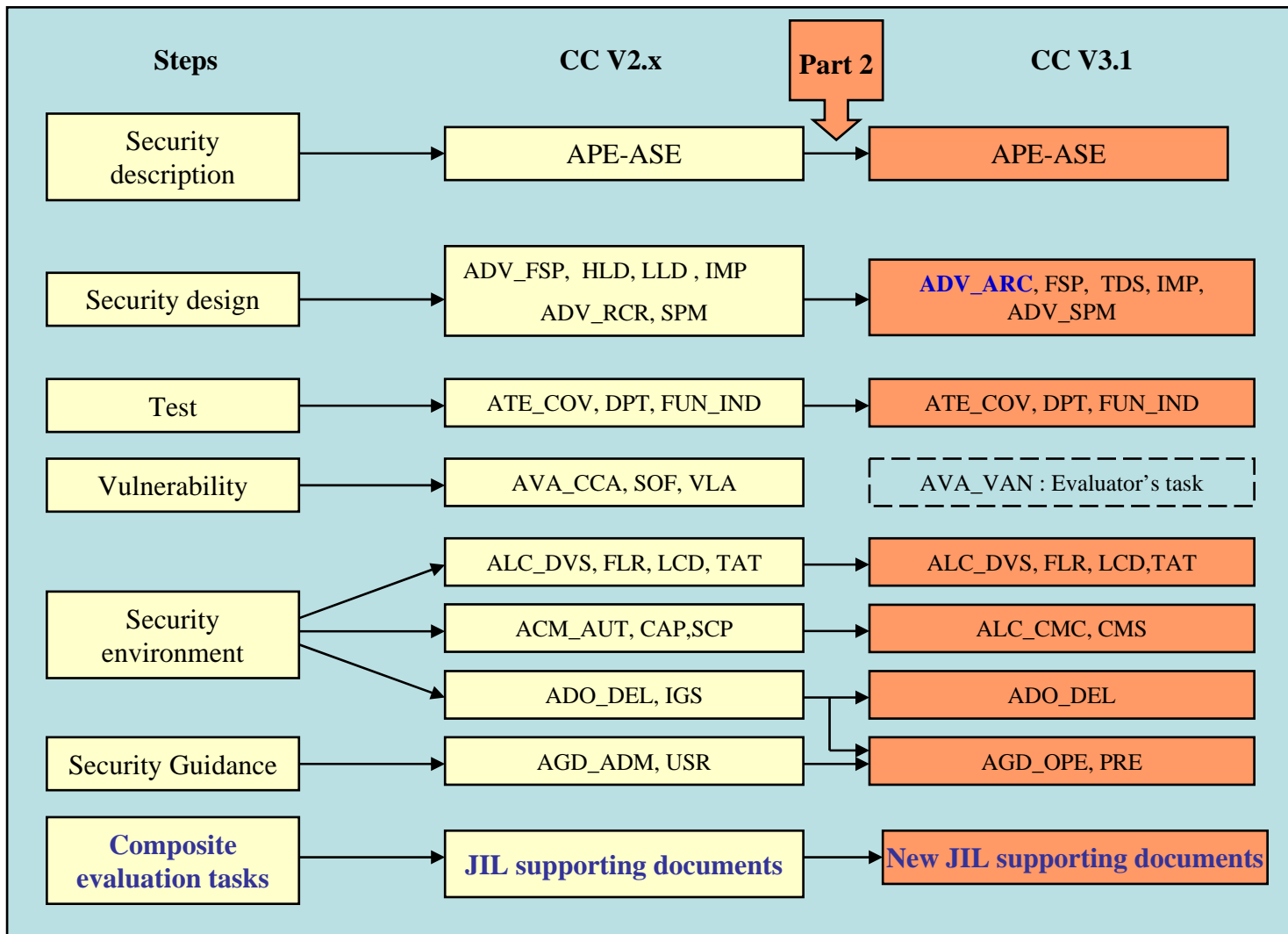




Why switching to CC V3 ?

- Do we have the choice?
- CC V3 brings some clarification & simplification
 - Clarification of language and definition
 - Simplification of developers work : less documents, closer to real life
 - Simplification for evaluators : enforced level of knowledge of TOE details and more consistency in evaluation task (AGD/ALC/ACM/ADO)
- CC V3 brings questions & issues
 - Update of protection profiles is required
 - Part2 stability , CCV3.2 introduction roadmap
 - What is in ADV_ARC, AVA_VAN ?
 - Update of JIL supporting documents is required
 - Reuse CC V2 results in composite product evaluation with CC V3
- Need guidance to facilitate transition
 - Correspondence between CC V2.3 and CC V3.1 evaluation tasks
 - Interpretation on new classes requirements (ADV_ARC)
 - Define rules on the cohabitation of CC V2.3, CC V3.1, CC V3.2

Transition steps overview



Transition steps: APE/ASE

- Protection Profiles
 - Updating of 'most used' Protection Profiles
 - Already started with Smart Card IC (BSI-PP-002)
 - Contact the PP sponsors about updating intention
 - Update Eurosmart PP Survey with this information
- Security targets
 - Updating of Security Targets is internal to each company
 - Effort in updating depends on PP availability,
 - Effort reduced if transition guidance is available to developers and evaluators.
 - **Need Transition Guide for part2**



Need a stable part 2

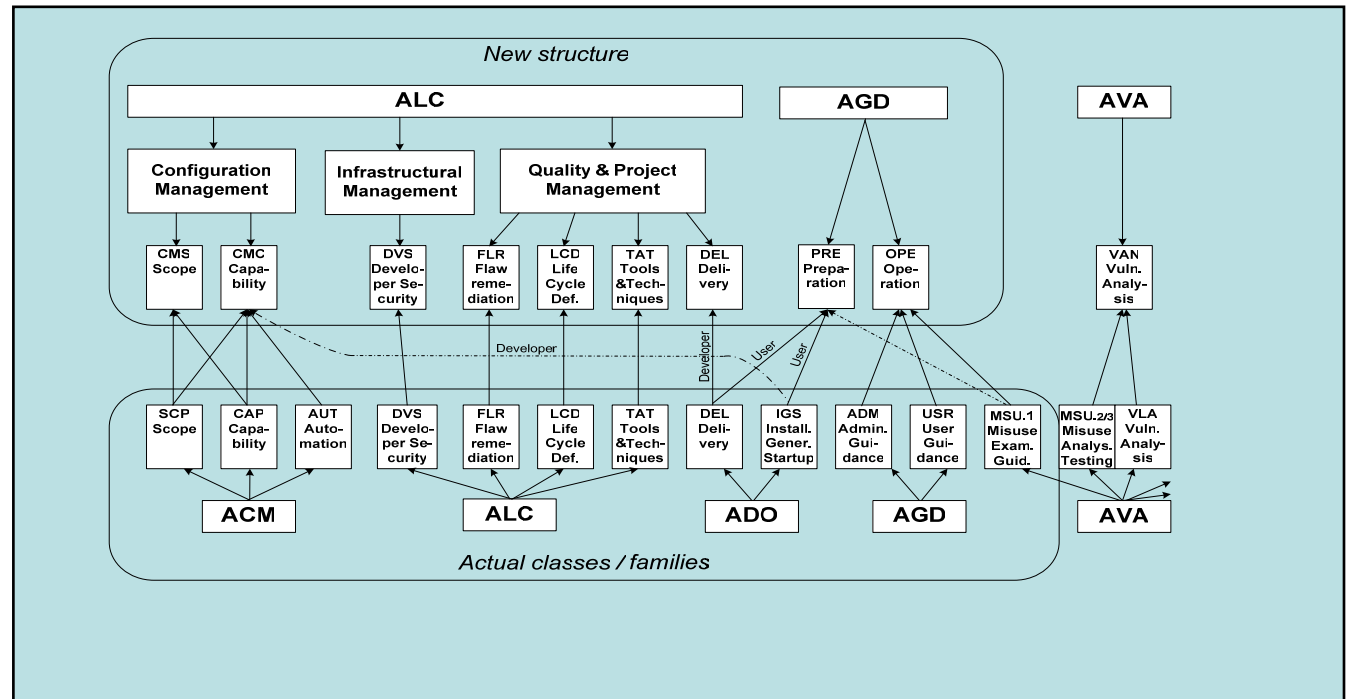


Transition steps: ADV-ATE

- Apparently few changes with FSP, TDS, IMP
 - Need to check in details and provide requirements mapping for developers
- ATE class identical to CC V2
- ADV_ARC need further investigation
 - Analysis phase to understand expectation and define common interpretation between developers, evaluators and evaluation authorities
- Transition guidance will provide description of changes and interpretation of new requirements for smart cards.
- Each company will have to update relevant design documentation (FSP,TDS) accordingly

Transition steps: ALC-AGD-AVA

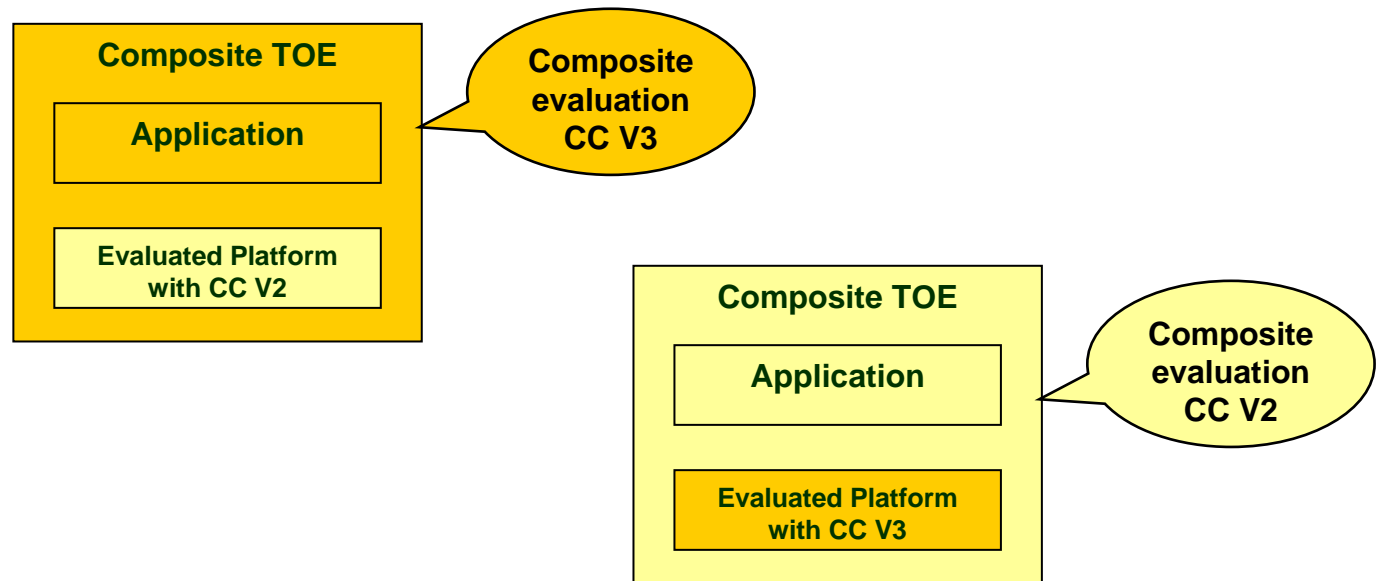
- Reorganization of ACM ADO AGD ALC classes
 - Transition guidance already available (BSI)



- AVA: No vulnerability analysis from developers
 - Smart cards attack method and attack potential already available for AVA_VAN quotation

Transition steps: composite evaluation(1)

- Impact on composite evaluation
 - Smart card Composite evaluation document updated by ISCI-WG1
 - Issues on reusability of CC V2 and CCV3 in composition



- Avoid dealing case by case (time consuming)
- Need defined rules for composite evaluation



Transition steps: composite evaluation(2)

- Estimation of impact according to different possible cases

Hardware certified with CC V2.x (BSI-PP-002)	Smart Card to be certified with CC V3.1	<ul style="list-style-type: none">→ ASE consistency : slight impact (if mapping available but need to check)→ ALC,ADO,ACM: no impact (if mapping available)→ AGD: no impact (if mapping available)→ AVA : to clarify• ARC impact to be clarified• Impact on Evaluation Task Report for composite evaluation to be clarified
Hardware certified with CC V3.1 (new hardware PP)	Smart Card to be certified or with CC V2.x	<ul style="list-style-type: none">→ ASE consistency : high impact (due to modification of hardware PP)→ ALC,ADO,ACM : no impact (if mapping available))→ AGD : no impact (if mapping available)→ AVA : should have no impact



Managing the equivalence

What we expect from Evaluation Authorities

- ⇒ Accept the equivalence as shown by the mapping, as long as there are products on the field (Maintenance/surveillance)
- ⇒ Accept the reuse of already available documents and evidences from CC V2.X evaluated product if equivalence (by mapping) can be demonstrated

Conclusion - Migration steps

- Identified steps & tasks
 1. Update Composite product evaluation & ETR_COMP(ISCI)
 2. Analyse and interpretation of ADV_ARC (ISCI)
 3. Provide mapping / interpretation on assurance classes (ISCI)
 - Part2 (done?)
 - ADV and ATE class
 - ALC-AGD (done)
 4. Updating of Protection Profiles (Eurosmart PSSWG)
 5. Consolidating analysis and mapping in transition guidance (Eurosmart PPSWG)
 - Including management of equivalences
 6. Updating JIL supporting document (ISCI)
 - Attack method & attack potential for AVA (done)
 - Guidance for smart cards evaluation
 7. Organizing training sessions for Eurosmart members & consumers (Evaluation Authorities contribution)

Conclusion - Smart Card views

- Smart Card industry is supporting CC revision
- Agree to start as soon as CC V3.1 is published
- Migration requires some efforts
- Guidance helps reducing the effort and therefore the cost of migration.



Need clear roll out of CC V3



Need to be allowed to use the CC V3.1 for several years



Need a period of stability in CC



Eurosmart – Product & System Security Working Group

Hans-Gerd Albertsen – Philips

Françoise Forge – Gemalto

Florian Gawlas – G&D

Catherine Gibert – STMicroelectronics

François Guerin – Gemalto

Jean-Paul Kirik – Aspects

Wolfgang Pockrandt – Infineon

Alain Malin – OCS

Sarra Mestiri – OCS

Juergen Noller – Infineon

Tyrone Stodart – Renesas

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